1) auditor

this size; which would give the engineer an ultimate

FOUR DAYS LATER FROM EUROPE. DETAILS OF

By the arrival of the steamer Columbia at New York on Monday last, we have Liverpool dates to the 5th instant inclusive—four days later than previous advices There is but little news of importance by this arrival The English papers were mainly occupied with rumors (in the absence of further advices) upon and speculations (in the absence of further advices) upon the affairs of India.

The Lord Lieutenant of Ireland had arrived at the

starting-point of the telegraph, in order to

The clipper-ships "James Baines" and "Champion o the Seas" (both of American build) were at Portsmouth, taking in troops for India. No ships that ever entered outh harbor created so much curiosity among men-of-war's men as these great merchantmen. High and low have been on board to visit them, and the port admiral, Sir George Seymour, expressed his unqualified as-tonishment at examining the speed logged by these mercantile clippers. The James Baines will take in nearly 1,000 of the 97th and other troops, and the Champion of the Seas the like number of the 20th foot and other regi-

ments, on Thursday, for India.

The vessels were also visited by her Majesty the Queen, who, on retiring, was pleased to say that "she had no idea she had such ships in her merchant service.' In the House of Lords on Monday, Lord Panmure in-troduced a bill empowering government to imbody and call out the militia at any time before the 25th of March next, without having to call Parliament together again. He said that a state of things existed in India which caused as great a drain upon the Queen's forces as if the country was engaged in a foreign war, and to meet this drain ten new battalions were to be raised and regiments were to be increased from 840 to 1,000 rank and file, and those serving in India from 1,000 to 1,200. All this could be done without going beyond existing acts, and the charge would mainly fail on the East India Company; but as time would be necessary to provide this increase in the army, and the country would in the interim be draintroops, the imbodiment of the militia might become necessary—hence the proposition.

After some remarks from the opposition that the measure ought to have been brought forward earlier, the bill was read a first time. On Tuesday the proceedings in both houses were devoid

The Liverpool Courier of the 5th says :

It is stated by a contemporary that the chairman, di-ectors, and secretary of the Great Eastern Steam Navi rectors, and secretary of the Great Eastern Steam Navi-gation Company, accompanied by her commander, Capt. Harrison, are to visit Liverpool to-morrow, and from thence proceed to Holyhead, to make arrangements for the first voyage of the Great Eastern to Portland. The movements of the managers of this ship of late remind one of the family portrait in the Vicar Wakefield, which was so large that it could not be got into the house. Here we have a ship which the owners do not know what to do with. They fancy she is too big to get into any work-ing port, and they visit Holyhead, Milford Haven, and every out-of-the-way port, to find accommodation.

THE LONDON TIMES ON INDIA AND CHINA.

The London Times of the 3d says: "The Bengal native army has ceased to exist." We repeat the summary of the Indian news in the same form in which we gave it on Saturday. The list of disbanded and revolted regiments is undoubtedly portentous, and can only be described in this way. And now what is the conclusion we are to gather from this fact? Is it a melanchely one? Are we to hear templating for on Indian ancholy one? Are we to begin trembling for our Indian empire? We think the natural conclusion from this fact is quite the contrary to a melancholy one. The truth is the very extent of the mutiny is the most satisfactory evi-dence we could possibly have that this is a military mutiny, and nothing more. Had there been the slightest wish on the part of the population at large to rise up against our government, there must have been some popular outthe part of the population at large to rise up against our government, there must have been some popular outbreak before now, with so widespread a mutiny as this to elicit and encourage it. The revolt of the whole native army of a presidency must have awakened the embers of a national rebellion if there were any to awake. We know that news travels very rapidly in India, and that the mass of the people is speedily informed of such passing events as interest them. With so large a number of mutineers, then, let loose among the mass of the population, there must have been by this time full knowledge of the mutiny and of its extent. Well, then, the watch word of rebellion has been raised, and it has fallen watch word of rebellion has been raised, and it has fallen dead upon the native population. This is a military mutiny. It is nothing more. These soldiers stand alone with their flag of revolt, and nobody joins them. In this state of the case, the carestest the control of the case the carestest the control of the case the carestest that of the case the c state of the case, the greater the nun the weaker is their ground; the the weaker is their ground; the more successful this movement is as a military revolt, the less it approaches to a national one. We have the data before us for a diagnosis, and we know now the nature of the disease. Had the mutiny been less wide we might have thought that the native population was waiting until it became wider; but, having come to such a head as it has without producing

my effect upon the native population, it tells its own his-ory, and we have only to repeat that it is a military re-rolt and nothing more. This is satisfactory in many ways.

The intelligence of the sepoy mutiny has been of so absorbing a nature that the British public have almost forgotten the existence of that contest in the Canton river which but a few months, almost a few weeks back, udged of sufficient importance to justify an appeal judged of sufficient importance to justify an appeal to the country. The plenipotentiary whom we have des-patched to the gates of China must make his appearance there with curtailed strength, for the regiments which were to accompany or precede him have been removed from his control. Under these circumstances it is of the highest history. highest interest to know that Admiral Seymo highest interest to know that Admiral Seymour is hold-ing his own against the turbulent government of Canton. The city of Canton lies ready for British occupation, and fit to impossible or impolitie to take possession of it at once—as we surely must take possession of it in the end—and to prescribe the terms upon which the intercourse of the two nations shall henceforth be conducted, it is comfort to know that, in this quarter at least, no irre parable mischief is in progress. We can bide our time comfort to know that, in this quarter at least, no irre-parable mischief is in progress. We can hide our time; the treacherous sepoy will not in the end be found to have materially assisted the cause of the Chinese. On Saturday last we published a letter from our special cor-respondent, who was present at the operations he records. By this it will be seen that the Chinese war junks, which may be taken to represent the effective naval force at the disposal of the Cantonese authorities, have been destroy-ed by the sailors and marines of the British fleet, and

ed by the sailors and marines of the British fleet, and that the direct passage from Hong-Kong to the city of Canton itself is as open as the course of the river Thames from the Nore to London bridge.

Complete as this success has been, we have no reason to suppose that it will bring us much nearer a settlement with this extraordinary people. As the British force steamed down the river in which their success had been so complete, we are told that a couple of miserable junks far astern of them fired a shot or two at the retreating flotilla, as though to signify that Chinese prowess had enforced their retreat. Nothing but an occupation of the city of Canton will bring them to reason; and whether it be possible to effect this object actually or virtually with city of Canton will bring them to reason; and whether it be possible to effect this object actually or virtually with the marines and seamen on the spot we are not in a posi-tion to judge. Until this, however, be done, and done in such a way that the Cantonese will for the future be made aware of the nature of that power which they have so repeatedly outraged and defied, we can never look for a settlement of the Chinese question which will stand the strain of a twenty-years trial

THE ATLANTIC TELEGRAPH.

We copy the following from the London Times of the 3d of August :

QUEENSTOWN, July 30

The entire squadron, consisting of five magnificent ships-of-war, now about to proceed to the consummation of this great enterprise, are at this time anchored in the harbor of Queenstown. They consist of the Niagara, Captain Hudson; the Sands; the Agamemnon, Master-Commander Noddall: the Cyclops, Capt. Dayman; and the Leopard, Capt. Wainwicht. The Agamemnon arrived this morning, only having

been engaged during the trip, from Greenwich in the very valuable service of testing practically the form and suitability of the machinery to be used in paying out the

Mr. Charles Tilston Bright, the engineer in chief of the Atlantic Telegraph Company, having joined her at that place, she bore away for the Irish coast at half-past 3

clock on Monday morning last.

To Mr. C. T. Bright is committed the entire control nd responsibility of depositing safely in its ocean bed his wondrous example of the united power of science and

the small engine on board which is connected with them;

the small engine on toard which is connected with them; the sheaves and gearing worked with great facility and precision, and so quietly that at a short distance from them their motion could scarcely be heard.

The strength of the girders which carry the bearing of the entire apparatus, and which to the eye of a person unskilled in the practical working of this description of machinery may seem at first to be unduly conderns. nachinery may seem at first to be unduly ponderous, was ound to contribute greatly to the easy motion and satis-actory steadiness of this most important agent in the

success of the undertaking
So soon as the Agamemnon had passed the track of the
So soon as the Agamemnon had passed the track of the
solution of the company's cable between Dover and Calais, in
order to avoid the possibility of its being injured by the
laying or hauling up of another line at right angles to it, haying or naming up of another inc a right angles of the experiments commenced. A 13-inch shell was attached to the end of a spare coil of the Atlantic cable, for the purpose of sinking it rapidly with a strain upon it to the bottom, and was then cast into the sea, drawing after it a sufficient quantity of slack to enable it to take hold of the ground and so set the machinery in motion.

The paying out they companeed at the rate of two

The paying out then commenced at the rate of two, three, and four knots an hour respectively. The ship was then stopped and the cable was hauled up from the was then stopped and the cable was hauled up from the bottom of the sea with great facility, by connecting the small engine to the driving pinion geared to the sheaves. When the end was brought up to the surface, it was found that the shell had broken away from the loop, by which it had been fastened for the purpose of lowering it. The cable, when recovered, was found to have been cleaned as bright as the specimens which have been so freely distributed among the friends of the enterprise, and which are so generally known.

The exterior coating of tar had been completely rubbed off by being drawn through the sandy bottom of the sea, and attached to the iron coating of the cable were some weeds and several small crabs which came up with it to the surface.

it to the surface.
On the following day a length of cable was run out and hauled in with perfect success opposite the Isle of Wight, attached to an anchor.

The speed was increased in this case to five knots.

During the afternoon of the same day a length was run out, having fastened to the end of it a log of timber, and after having been towed with a mile and a half of cable was coiled in again with success.

On Wednesday, about half-way between the Land's End and the coast of Ireland, another length was run out at the rate of six and a half knots per hour, and subsequently hauled in. The Agengamon then steered for every fixed the statement of the steered for the statement of the st quently hauled in. The Agamemnon then steered for Cork, and reached Queenstown harbor at 4 o'clock on Thursday morning, all on board being more than ever satisfied at the success of the enterprise.

Some highly-successful experiments were also at the same time performed with an electrical log invented by Mr. Charles Bright, for the purpose of continuously ascertaining with accuracy the rate at which the ships are saling as the same of the same for a saling with accuracy the rate at which the ships are saling as the same of the s

directions as to the rate or paying the cable, so as to pre-vent the possibility of any unnecessary strain being put upon it. The log is suspended in the sea from the ship's quarter by a line, carrying within it a wire insulated by gutta percha, which is in connexion with a battery and electro-magnet contained within an indicating instrument on deck. This is so arranged that at each revolution of the wheel below an electric current is broken, and by the deflection of a magnet, which forms part of the circuit, a step by step movement is communicated to a register, which indicates the distance run and rate made by the

Accest 1.—The electrical experiments through the Atlantic cable will be completed to-day. The signals have passed through the 2,500 miles in the most satisfactory manner. The expedition will sail for Valencia on Mon-

A rumor having been circulated that at the approaching fêtes on the 15th of August the capture of the Malakoff was to be represented, the Russian ambassador waited on the government for the purpose of taking exception to the arrangement, when he was told that it was never in-

the arrangement, when he was told that it was never intended to represent such capture—the chosen subject for representation being the conquest of Kabylia.

The departure of the Emperor and Empress for Osborne had been fixed for the 5th of August. It was said that they would only be accompanied by Count Walewski, the Minister of Foreign Affairs, and Gen. Rollin.

In consequence of information derived from the individuals ordered for trial on a charge of having conspired to assassinate the Emperor, eight Italian refugees, of the working class, have been ordered to quit France.

M. Andouille, director of the general movement of funds at the ministry of finance, had been appointed subgovernor of the Bank of France, vice M. Vernes, resigned.

Letters from France say that the silk harvest there is from one-third to one-fourth under a fair ordinary The new wheat was proving of excellent quality and

A good early vintage is expected.

The discovery of another comet is announced by Mr. Dien, of the Imperial Observatory, Paris, and at the same

PORTUGAL.

Considerable sensation had been created by the discovery of extensive frauds in the wine trade. Govern-ment had seized a large quantity of mistine, brought from England to Oporto, and intended to be taken back as veritable port wine. About three thousand pipes of hese mistines, which comprise bad alcohol, molasses, and he essence of tar, are said to be now in London. A fire broke out at Tarifa on the 19th July, and was

still raging on the 20th, having spread over an impudistrict of agricultural country, consuming vast or district of agricultural country, consuming ties of standing grain, country houses, barns,

AUSTRIA. The Emperor of Austria had officiated at the inaugura

TURKEY.

Constantinople, Aug. 2.—The French ambassador, failing to obtain the setting aside of the Moldavian elections, suspended relations with the Porte on Thursday last, and prepared to leave Constantinople. To prevent that step the Sultan changed his ministers. PERSIA.

REFUSAL OF THE PERSIAN GOVERNMENT TO EVACUATE Heart — We have good reason to believe that the intelli-gence of our Indian troubles has reached Herat and Teeran, and has had the effect there that might be expect ed. The Indian papers mention that information has been received at Bushire that the Persian commandant at Herat had refused to evacuate that place or acknowledge

the treaty.—Smith, Elder & Co.'s Homeward Mail.

The Globe believes that no authentic statement of the refusal of the Persians to evacuate Herat has been received from any trustworthy quarter.

INDIA.

There is nothing later from India, but further news was looked for at any moment by the Australian mail camer, via Ceylon.

It is stated that the India Company have made a re-

quisition upon the government for 6,000 additional troops, with the view of strengthening the forces in Madras and Bombay, which have been weakened by draughts for

THE REPORTED PALL OF DELIII.

[From the Overland Summary of the Bengal Hurkaru of July 19.] The mutinies are still spreading. The regiments which were considered to be the best affected are catching the infection, and the "loyalty" of any portion of the Bengal army is now only asserted in a satirical sense. The delay army is now only asserted in a satirical sense. The delay which has occurred in the taking of Delhl, caused by circumstances over which the governing power has no control, is sufficient to account for this disastrous state of things. There is good reason to suppose that Delhi is by this time in our hands, or rather what remains of it, for the imperial city is said to be rased to the ground, and its carriers and inshibitate semi-less 20 000. the imperial city is said to be rased to the ground, and its garrison and inhabitants, numbering 30,000 men, women, and children, entirely destroyed. A statement to this effect reached us on Wednesday, upon what seemed to be good authority, and we hope before going to press to be able to assure our readers of the fact. There has been a report for days past in the bazzars to the same effect, and bazzar reports, though usually treated with contempt, very frequently anticipate the news received through the regular channels by several days.

The communication with the upper provinces has been interrupted since our last, and continues so; but we learn via Bombay that Cawapore and Lucknow were still in our possession; that Agra Merut were quiet, and that some smaller stations where outbreaks had taken place were in a comparative state of safety.

that some smaller stations where outbreaks had taken place were in a comparative state of safety.

At Benares and Allahabad there have been mutinies, and many Europeans have been killed; but those places still remain in our possession, and European troops have been sent up to make them secure.

At Azimghur, Gorruckpore, Nusseerabad, Jhansi, and other places, there have been outbreaks of a more or less sections, character.

character.

During the progress of the Agamemnon to the Downs the mechanical appliances for regulating the delivery of the cable into the sea were kept continually in motion by

he may have been deceived. We consider, however, that

he may have been deceived. We consider, however, that there is sufficient probability in his statement to warrant us in issuing it to our readers.

"Delhi is captured. Thirty thousand lives lost, consisting of men, women, and children. The British forces gave the mutineers only 24 hours, time to clear their families out of the Delhi fort; but they would not listen; they said that the English were speaking lies. 'Couch dur naye hey hum o k ke couch kurna suckaganye,' (there is no fear; they cannot harm us.) After the lapse of twenty-four hours the British commenced fring till they razed Delhi to the ground. Everything is now quiet round about Delhi; but there are risings in small forces. Gya is expected to rise on the 15th inst. A detachment is ordered to proceed there to guard the treasury, containing nine lacs of rupees. The 1st fusiliers, on their march, met a number of the mutineers on the Allahabad road, and cut up a great many of them.'

THE AMERICAN HORSES.

[From the London Morning Star of August 4.] (From the Loudon Morning Star of August 4.)

A great meeting was held at Goodwood last week. The "beauty and the chivalry" of England assisted at it, and amongst the guests of the Duke of Richmond were a Royal Duke, a Queen, an ex-Prime Minister, and divers other great and noble personages. The sport was worthy of their patronage, and throughout it was not marked by one incident which the opponents of horse-racing could seize to strengthen their arguments. The stirring interest which the racing excited did not end with the sport, for events were decided which were fraught with much prospective importance. Future speculations will be ruled by the running at Goodwood, to which professional racing men will turn to discover many things that are

ruled by the running at Goodwood, to which professional racing men will turn to discover many things that are popularly placed in the category of turf mysteries.

Sporting journalists have already well and accurately described the events of four days, and it only remains for me to take a Parthian glance at the race for the cup, and to point out how enduring must be the popularity of the turf, and how wide-spread the interest which it excites, when we find that horses are sent expressly from America to enter the lists against the "flower" of England's thorough-breds. France has long been represented on the English turf, and may well boast that it can beat us on our own ground. The Goodwood cup has now been carried off four times by our allies—allies in sport as well as in war. The Americain venture was not discouraging, and it was attended by circumstances which will doubtless induce Mr. Ten Brock and his countrymen to prolong their stay amongst English sportsmen.

Both the American horses that run for the Goodwood cup evidently lacked an English preparation. Pryor, in

Both the American horses that run for the Goodwood cup evidently lacked an English preparation. Pryor, in particular, seemed fat; and, after the impatience which he displayed before the start, people were surprised to see him figure so prominently in the race. I have no hesitation in stating, however, that if the American horses had been ridden by English jockeys, they would have been much nearer the winner at the finish. Indeed, at the distance, Prioress looked quite formidable, and her success appeared to be within the range of possibility. Her rider, however, sat bolt upright upon her and held her in a manner which would have excited suspicion had an English jockey adopted the same style of riding. The "Americans," in fact, seemed ignorant of "nursing" and easing their horses, and of making those inishes which impart something artistic to the profession of an English jockey. Prioress, too, was nearly going the wrong course, and her rider the not discover the mistake until the lead was taken from him, and he saw the horses bearing away to his right. After their performance at bearing away to his right. After their performance s oodwood, however, the pretensions of the America orses will be no longer disparaged. Of the meetings which will take place in the north an

south this week, the gathering at Brighton will only at-tract the attention of metropolitan racing men. It af-fords an opportunity of combining business with pleasure, for to Brighton racing men are invariably accompanied by their wives and families. [By Telegraph from London to Liverpool.]

LONDON, Wednesday morning, Aug. 5.

VISIT OF THE EMPEROR NAPOLEON TO OSBORNE. - Paris of St. Cloud to-morrow on their way to Osborne, the resi dence of the Queen of England. Their majesties will se

dence of the Queen of England. Their majesties will set out on their return on Monday next.

Alternatia, Darracuti, Tuesday.—The passengers and mails have been landed here from the Swiftsure, Captain Price, which has made a passage of 98 days from Melbourne, and brings 60,000 ounces of gold.

The Times, in a leader on the visit of the Emperor Napoleon, says: "Just now, that the sovereigns of northern and eastern Europe have been meeting at Berlin to discuss the maintenance of their own interests, a visit from a great ally who has so much in common with ourselves is specially opportune. elves is specially opportune.
"A meeting between the two great western sovereign

is doubly welcome. It will show the European world that an alliance which has been distinguished by such glorius success is as strong as ever, and that France and England will still preserve, by their union, the stability

Europe.

Her Majesty yesterday reviewed the 34th and 42d regiments, previous to their departure for India. The royal party also visited each troop ship.

It is stated that all the members of the East India Company's civil service, at present on leave of absence, have, with the exception of the sick, been ordered to re-

turn forthwith.

From the New Orleans Bee of Aug. 12. LATER FROM MEXICO.

The mails by the steamship Texas, from Vera Cruz reached our city yesterday morning. They are to the 7th from Vera Cruz, and to the 3d instant from the city of Mexico. We copy the following from the Mexican Ex-

Santa Anna has, according to a published notice in the Troit d'Union of yesterday, denounced the manifesto da-ted at Carthagena the 5th of last April. He says he had nothing to do with its authorship, and denounces the per-son who could have made such a free use of his name. This denunciation is dated in Turbaco, June 30th, 1857. and appears to have been published in a Havana paper. The notice states it to be Gen. Santa Anna's opinion that the manifesto was gotten up in Havana. Whether to believe the manifesto as genuine, or the notice as coming from the great man of Turbaco, we are in doubt. Sup-posing, however, that the last is nearest right, what ob-ject could any one have had in Havana to have written that manifesto? It certainly looks as if some Spanish agent there had used the name of Santa Anna in the attempt to scare Mexico into a speedy settlement of the present difficulties. For the present it is as well to give all statements concerning Santa Anna the benefit of a debut. He or his friends, or his enemies, are concocting a great many falsehoods about him just at this time.

The news from within the republic is uninteresting enerally. The election returns are coming in slowly and show a growing majority in favor of Senor Comon-fort for President of the republic. He has now within a few of 2,000 votes from the different electoral colleges. The highest vote of any opposing candidate is 62. Yesterday was the birthday of President Comonfort. It

has been set aside as a great day of the year, and holds rank among the feast days of the country. During the day the President was called upon by the diplomatic corps and by many other friends. A banquet was also spread for him, and we are informed that at the banquet many warm friends were present. The day was alto-gether observed with a great deal of attention.

The Extraordinary of the 30th ult. refers to the immi gration into the State of Vera Cruz of a number of free blacks from Louisiana. It says :

Some time since a small party of negroes from Louisiana found their way to Mexico, and settled to the south of Vera Cruz on the Popolospam. They turned their attention to the cultivation of Indian corn, and were so successful that they wrote to their friends in New Orleans, telling them of the great advantages held out to them in Mexico. Their chances for making money were here much greater than in the United States, and what was to be related will more be the black they were not because. prized still more by the black, they were not here sub-ected to the same inequality from cast as they were in

jected to the same inequality from cast as they were in their old homes.

The representations of these pioneers have been successful in inducing a large number to immigrate. Not long since we noticed the arrival of a party of forty, who have come with practical knowledge, strength, and money to carry on agricultural pursuits to advantage, and our ad-vices are that they are setting to work with all that en-ergy and spirit which characterize the people from whom v have received their instruction.

they have received their instruction.

The Estraordinary does not greatly admire this contemplated accession to the population of the republic.

We learn from the Trait & Union that a revolutionary attempt had been made at Guadalajara, but had proved abortive. A portion of the garrison rose and killed their commander. They were immediately attacked by the remainder of the troops, driven out of the fortifications and the city, and fell back upon Guanajuata, where they will, do doubt, be hotly received. The Trait & Union thinks that, without ascribing much importance to this isolated act of disaffection, it proves that the reactionaries are still actively at work.

McDONALD'S RAILROAD BRAKE.

We take great pleasure in calling the attention of the reader to the subjoined communication which appeared in a late number of the Intelligencer, in relation to Mr. McDonald's railroad brake-an admirable and long-needed improvement, by which all the brakes of a train are placed completely under the control of the engineer, who requires no help or assistance in its management. Its vast superiority over the brake now in use may be inferred from the fact that, while a pressure of 9,600 pounds can be applied by the McDonald brake in one second of time, thirty seconds of time are consumed in applying a pressure of only 2,400 pounds by the former. The important advantages of quadrupling the retarding power, and applying it almost instantaneously, are striking and appreciable.

This brake has been put upon one of the express trains of the Richmond, Fredericksburg, and Poto mac railroad. After using it for more than five months, examining it thoroughly, and testing its value in every way, the president of this road pro nounces it not only the most perfect of all brakes but destined to be put in universal use. The president also states that the engineers have so much confidence in the increased safety of life which it secures to them that he believes that they can be em ployed for a considerably lessened compensation The brake will shortly be placed upon all the trains upon this road.

A convention to represent the railroad companie in the United States has been called for the first Tuesday in Sentember next, for the purpose of de vising means of decreasing the present enormous expenses of keeping their roads in repair, and of running their trains. We understand that Mr. McDonald has sent invitations to the presidents of these companies to assemble at Ashland, (Slash cottage,) near Richmond, Virginia, on Saturday a week, previous to their convention in New York, to witness the working of his brake. They are also invited to bring with them experienced engineers, as it is the desire of Mr. McDonald that his invention should be subjected to the closest scrutiny and the most severe tests, as he is satisfied from the assurances of those who have used it that it will not be found wanting in any essential particular:

RAILROAD BRAKES

Messas. Entrons: I propose to exhibit somewhat in detail the defects, or rather the vices, of the brake system now in universal use on all railroads. In doing so I aim at the useful purpose of superseding a murderous system and substituting therefor the McDonald brake, a recent invention, which affords a power of retardation propor-tioned to the momentum of the train.

That the design of this invention may be understood.

it is necessary first clearly to comprehend the defects of the present system, which the new brake is intended to supply. All will agree that he who remedies these de-fects and gives increased safety to railroads will accom-plish an end of infinite usefulness.

plish an end of infinite usefulness.

The first defect of the present system is that the engineer who stands on the look-out for danger has no primary power in his own hands to check the train. His is now a secondary power only. He sounds the alarm-whistle for brakesmen to do the work.

This is a most deadly defect of the present trake system of the present trake

tem. The power to ward off a coming blow should be as instant as is the perception of the danger. The man who sees the peril should, therefore, exert this power with instant as is the perception of the danger. The man wh sees the peril should, therefore, exert this power with his own hand. It is obviously bad philosophy whice gives the perception of danger to one man and impose the duty of warding it off on other and remoter agencie. To this clumsy feature of the present system may be

raced the great majority of railroad disasters. unavoidable delay in this indirect action; and the an unavoidable delay in this indirect action; and the time wasted iff this manual application of the brake pow-er has for thirty years been fraught with terrible loss of human life. Long experience has proved this system to be unequal to occasions of collisions of trains, or of sud-den obstruction on the track; and this inefficiency, as I shall demonstrate, results from this tardiness of action in a great degree, and also from a positive lack of a phy-sical retarding power on the train under the present sys-

The admitted untrustiness of the present system or such occasions should condemn it to a total abandonment as soon as a brake, based on approved philosophical prin-ciples, and avoiding the palpable errors of the present brake, can be offered for adoption. This desideratum, long brake, can be offered for adoption. In a desideratum, long and earnestly pursued by milroad men, has been at last achieved. Angus W. McDonald, of Winchester, Virginia, has invented a mode of operating car brakes which gives to the engineer a primary and a perfect power over all the brakes of the train.

By this invention the engineer is made to be his own brakesment. He gives no signals to a remote and according

by this invention the engineer is made to be his own brakesman. He gives no signals to a remote and second-ary agency to do his work of imminent necessity. With his own hand, and almost instant as perception itself, he is enabled to clasp every wheel of the entire train with a power regulated at his pleasure, from an extreme slide of the truck-wheels to a gentle pressure of a hundred pounds. It places the retarding power directly where it should be placed. The man who sees the danger is on. abled to strike it down with his own hand.

abled to strike it down with his own hand.

It would be out of place in the present article to attempt a detailed description of the mechanical structure of this invention. The general reader would receive but vague impressions therefrom, whilst it would avail but little to railroad men, in the absence of the drawings and Of practical facts, however, all can judge.

model. Of practical facts, however, all can judge. This brake is not a crude theory, existing only in model form and in drawings. In that, its chrysalis state, it was subjected to the criticism of the most scientific engineers as well as the most practical machinists of the land. For its simplicity, its reliability, and its adaptedness to its intended uses it received the sanction of their approval. It has progressed through all these stages, and, after a labor of more than two years in perfecting its mechanical details, it has at length been brought into practical application on a train of cars. cation on a train of cars.

One of the express trains on the Richmond, Fredericks

burg, and Potomac railroad has been equipped with this McDonald brake. It has been on trial for five months, and has won the entire confidence of all the officers of that road. It is found to transfer the brake power directly, and with a midiplied force, into the hands of the engineer. He controls the movements of the train without the aid of brakesmen, and with a promptifude unknown to the present system.

I have a right, therefore, to speak of the McDonald

I have a right, therefore, to speak of the McDenald brake as a matured system ready for service; and, in point of economy, convenience, and safety, possessing great advantages over the brake system new in use.

The first step to amendment in such matters must be a thorough exposure of existing errors. Every man who travels should be made to understand the inadequate means now provided for his safety. All can comprehend the dangers attendant upon the high speed of trains; but not one in a thousand is aware that escape from obstructions and collisions is, under the existing system, altogether matter of chance and providence.

These murderous collisions on milroads are called "accidents," and under that name are passed into oblivion. In some sense they are "accidents," but it would be more just to say they are unavoidably "incident" to a defective and vicious system. It is "accident" that a cow obstructs the track; it may be "accident" that a train is

fective and vicious system. It is "accident" that a cow obstructs the truck; it may be "accident" that a train is out of its own time; but when collision from such causes takes place it is certainly no "accident" that the brakes were unequal to its prevention. It is the shame and reproach of all railroads that on such emergencies they, literally speaking, have no power of retardation.

The defects of the present brake system are radical and elementary. When the peril is instant, and life hangs upon a moment's time, its action is tardy and uncertain. But, even with the greatest promptness in its application, its utmost power of retardation is unequal and disproportioned to the opposing momentum of the train. The unthinking traveller and the equally unthinking reader may not duly appreciate the magnitude

thinking reader may not duly appreciate the magnitude of a second of time on such occasions. They do not know the measure of a second in yards of distance, and that the measure of a second in yards of distance, and that the moments now unavoidably lost in operating the brakes by hand are all of life that remains for them in this world.

I will give an analysis of the retarding or brake p

act of disaffection, it proves that the reactionaries are still actively at work.

Juarez is undoubtedly elected President of the Supreme Court of Mexico. His vote is almost as large as that lightning train on the Washington and Baltimore rail-

On this train, from motives of economy, there are use on this trail, from motives of economy, there are usually but two brakesmen. This gives a brake power ample for the regular stopping points at the platforms and water stations, but, as I shall show, almost powerless on sudden and imminent danger. These occasions, under the present system, are left to hazard, and are called "accidents,"

nt system, are left to hazard, and are called "occulents, in dreadful "railroad accidents," according as few or many of the passengers are crushed to death!

The train consists of a locomotive and six cars. The veight of the engine is (say) thirty tons, that of each car with its freight of human life is about fifteen tons, making with its freight of human life is about fifteen tons, making an aggregate weight of one hundred and thirty tons. This tonnage is propelled—I would rather say projected—at a speed of thirty miles an hour. It rushes on a mile in two minutes, a half mile in one minute, and fifteen yards in a second of time.

Now, reader, suppose at this frightful velocity the enterprise of the content of the second of the second of time.

Now, reader, suppose at this frightful velocity the engineer perceives an open draw-bridge. He sees the danger at a half-mile's distance, and, unless this mad speed
is stayed, one brief minute measures the span of his own
life and the lives of his passengers. In thirty seconds
half his time is gone, and in thirty seconds more the
plunge is taken, and the agonizing details crowd the
newspapers under the head of "dreadful railroad accident"—
"great loss of life!"

What are the means provided by the present system
for such an emergency? What are the precautions, what

or such an emergency? What are the precautions, what are the potent agencies in the hands of the engineer to ave from this terrible death his freight of living men? At a cost of some detail, I will give the process by which the train is now braked, and I will measure before the traveller the feebleness of the power relied upon to stay

its almost explosive velocity.

It is not a small defect of the present system that it It is not a small detect of the present system that it devolves the highest duties upon the most inferior and irresponsible men in the service of the road. Almost every passenger carries a watch, but how few have an idea of the internal mechanism which checks off and identifies every passing moment of time. Every one has observed a dirty-looking fellow on the platform of the observed a dirty-tooking fellow of the painting of car, who, at a peculiar whistle of the engine, turns his wheel, then springs to the adjoining car and wrings a second wheel to its utmost tension; but how few are aware that their lives depend on the fidelity and strength of this man! This dirty-looking fellow, badly clothed, most inadequately paid, holding the lowest rank of all the servests on the train is the brakesman! he servants on the train, is the brakesman!

the servants on the train, is the brakesman!

If in this life honors were always dispensed in the ratio of usefulness, and dignity was associated with eminent responsibility, this brakesman would certainly outrank the highest officials of the land. On his vigilance rank the highest obedience to complicated signals the and intelligent obedience to complicated signals the well-being of the train at all times depends. But, on occasions of approaching collision, it is in his presence of mind, his promptness of action, his eminent fidelity or mind, his promptness of action, in a and courage that any hope of rescue can be found. If, paralyzed with fear, his strong arm fails at this need, or if, with coward heart, he quits his trust and springs from the train for safety, all is inevitably lest in one murderou

plunge.
It is through signals to this brakesman that the engi-It is through signals to this brakesman that the engineer now commands into service the retarding powers of the system. Surely the man on whom so much depends has been selected because of his high qualities of a ready perception and an intrepid courage. Not so, however, in practice. This man is picked up anywhere, because he will work cheap. In the South negroes are appointed to this high trust. And this cheap agency for so vital a service is one great defect of the brake system now in use.

But to proceed with my analysis of the present brake-

power on railroads.

The train is provided with two of these cheep brakesmen. Suppose them, however, at their posts, and prompt to obey the signal whistle. I wish to show the force they can exert to resist and stay the velocity of the cars. and also how many of these precious seconds of time will elapse before that force, such as it is, can by any possi-ble activity be brought in retardation of the train. This force is susceptible of accurate measurement, and may be told in pounds and ounces. The time lost in its ap-plication may also be measured with a reasonable pre-

cision.

The brakesman now winds up his brake by means of a windlass. The brake-chain winds around a spindle, which, when the siack is wound upon it, has a diameter of about four inches, whilst the brakesman's wheel has a diameter of about 16 inches. Thus he has a leverage that enables him to press his brakes against the truck-wheels with a force four times greater than that with which he turns the wheel of his windlass.

Now, what power can a man exert to turn a wheel located as is the brakesman's wheel? He is obliged to hold one foot in readiness to work the ketch of his ratchet; and his strength is exerted to turn a wheel on the

hold one foot in readiness to work the ketch of his ratchet; and his strength is exerted to turn a wheel on the
level of his hips. He works at great disadvantage. The
full force of a man thus placed will not exceed 150 lbs.
This 150 pounds, as just said, becomes four times as
much, or 600 pounds, by leverage, when applied to retard the truck wheels. Thus we are enabled to measure
with reasonable precision the ultimate power of the brake
that each brakesman can exert. It is four times his personal strength, exerted under great disadvantages. It
will not, I am sure, exceed 600 pounds on each car he has
the time to brake In considering this question of power on such a crisis

In considering this question of power on such a crisis seconds of time are of high importance. A half-mile's notice of the impending collision is generally large allowance. Curves will intervene and obstruction will often be much nearer than a half-mile when the engineer perceives his danger. The reader can now comprehend the value of a second of time. Thirty seconds and half his distance is past; 440 yards only remain. Time thus given in yards is made palpable to every man's sense. In this brief space life has to be saved. The law of projectiles is incorrable: it knows no sympathy with human

this brief space life has to be saved. The law of projectiles is inexorable; it knows no sympathy with human terror. The impending shock can only be avoided by a physical retardation, both instant and potential.

We have seen that each brakesman may exert a retarding pressure of 600 pounds on a single car. They then, if time allows, spring to the two next cars and brake them with a like retarding pressure: making a brake of 2,400 pounds pressure on the train. This is the full measure of the brake power that can be applied on spech no of the brake nower that can be applied on such emergency. But can even this much power be com-manded in a minute's time? Let us now see what acts have to be performed in that short space.

There are two brakesmen on the train when the engineer sounds his alarm-whistle. A quarter of a minute or fifteen seconds is a short notice to do what has then

to be done on a single car. The whistle is to be sounded and heard; the brakesmen are to spring to their wheels; they are to give them several turns to wind up the slack of the brake chains; they then wring the wir lass with their utmost power, and finally retain this grasp by setting the ketch of the ratchet with the foot. It calls for prompt and rapid action to execute this detail in

the short space of fifteen seconds!

It must be remembered, also, that all this detail is to be performed by a human agency, exerted in the very presence of impending death. Each brakesman knows that his own life and the safety of the train depends not that his own life and the safety of the train depends not on his own energy alone, but on the concurrent action of another brakesman—a low-priced fellow, working for a bare subsistence. Some allowance for human frailty must be made. I repeat it, fifteen seconds is brief space for this detail of duty under such circumstances. Let us assume, however, that both brakesmen possess presence of mind and intrepid courage, and each brakes his car in fifteen seconds. Two cars on the train will then be braked (sixteen wheels) with a force of twelve hundred pounds or seventy-five pounds pressure on each of the

pounds, or seventy-five pounds pressure on each of the sixteen wheels. This is the sum of the retarding power at the end of fifteen seconds. In fifteen seconds more the brakesmen may go through the same detail and brake two other cars at a pressure of twelve hundred pounds; and thus it is that with every energy a half minute must clapse before the train will run under pressure of the full

brake power of 2,400 pounds.

Is this power, thus tardily commanded into service, equal to the occasion? The saswer is found in the frequent "bloody accidents" that are recorded in the daily

papers.

Are these disesters, which time has proved to below Are these disasters, which time has proved to belong to the system of railroads, and which may be traced to these elementary defects, with any just propriety called "accidents?" This manifest inefficiency of the retarding power is no "accident?" and it is a menstrous reproach upon the laws of the land that this murderous velocity

Having thus pointed out these vicious and fatal defects in the present brake system, I shall now very briefly show the action of the McDonald brake. The public may thus judge the comparative promptness and efficiency of the

By this invention the work now intrusted to huma agency is done by steam, operating upon a simple me-chanical contrivance, which is located under each car. An extra steam cylinder is placed on the engine, under the foot-board, and the brakes of every car are so con-nected as to be drawn down by the simple motion of the piston of this cylinder. The engineer is thus enabled to invoke the full steam power of the boiler at his pleasure.

this size; which would give the engineer an ultimate pressure upon his brakes of ten thousand pounds.

The two systems may now be readily compared; or rather, they may be centrasted. In the example I have taken of approaching collision on the Washington and Baltimore road the engineer is supposed to see the danger a half mile off. He commands the retarding power by signal to two brakesmen. These men, with every dillegence, can only place a brake pressure of twelve hundred pounds on two cars of the train in fifteen seconds. They then double this pressure in fifteen seconds more. Their ultimate retarding force is thus 2,400 pounds, exerted on the thirty-two wheels of four cars. The pressure on each of these thirty-two wheels (there being eight wheels to a car) can only amount to seventy-five pounds, and this

the thirty-two wheels of four cars. The pressure on each of these thirty-two wheels (there being eight wheels to a car) can only amount to seventy-five pounds, and this tension is attained after a lapse of thirty seconds.

Let us now see in what time and with what force the same engineer can brake a train by means of this McDonald invention.

In the case supposed life is to be saved, if saved at all, in one minute of time. Whatever of retarding force may be commanded must be promptly applied. By this McDonald brake the agency of these cheap brakesmen is dispensed with. The engineer is made self-reliant; his brakesmen are iron brakesmen; his messenger to do his brakesmen are iron brakesmen; his messenger to do his brakesmen are iron brakesmen; his messenger to do his brakesmen are iron brakesmen; his messenger to do has brakesmen are iron brakesmen; his messenger to do has brakesmen are iron brakesmen; his messenger to do his brakesmen are iron brakesmen; his messenger to do his brakesmen are iron brakesmen; his messenger to do his brakesmen are iron brakesmen; his messenger to do his brakesmen are iron brakesmen; so perceived, and by a motion of his hand, in a moment's time, a retarding pressure of five thousand pounds, or double that amount, if the extra cylinder be enlarged, may be brought to bear upon all the wheels of each car of his train.

The comparative efficiency of the two systems may be stated in figures. Under the present system an aggregate pressure of 2,400 pounds can be applied to the train in thirty seconds of time. This is a brake pressure of seconty-five pounds on each of thirty-two wheels.

Under the McDonald system an aggregate pressure of 10,000 pounds may be applied to the train in one second of time. This pressure is brought not on the wheels of the six cars which compose the train. This is equivalent to two hundred pounds on each of forty-eight wheels.

The comparison or contrast is briefly thus: A total retarding force on the train of 2,400 pounds against a total of 10,000 pounds by the

The comparison of contrast is often that it is a constant of 2,400 pounds against a total of 10,000 pounds by the McDonald system; a power in detail of seventy-five pounds on each of thirty-two wheels, against a power in detail of two hundred pounds on each of forty-eight wheels by the McDonald system. In point of time the comparison is as one second is to

In point of time the comparison is as december to thirty seconds.

These disparities between the two systems in time and in power constitute the difference between efficiency and implicingly; or, to sum it up in fewest words, it is the difference between life and death in nine cases out of ten of idden emergency.

Enough has been said to rivet attention. I have at-

tempted no description of this invention. I have only given its valuable attributes in contrast with the very meagre energies of the present system. That my state-ments are true I avouch the fact itself. The McDonald ments are true I avouch the lact itself. The alcoholar brake is at work on one of the express trains of the Richmond and Fredericksburg railroad. It has been in us there for five months, and may be examined at any time. That it possesses this promptitude and power for eme-gencies, I avouch the precident and officers of the road; that it does its work with facility and absolute precision, I avouch the engineer who rests in the security of its innt power.
With all this to commend its adoption, this McDonald

brake is a new thing, and has to struggle into use against an established system. The present system, imbedie and murderous as it is admitted to be, is difficult of overmurderous as it is admitted to be, is difficult of over-throw. It occupies the field, and opposes to all reform a vis inertia that defies an innovation.

I hope through your columns to shake this vicious sys-tem, with all its monstrous defects, and to substitute a system of brake perfectly simple in its device, and inf-nitely more efficient in its operation.

A. J. M.

WARRENTON, FAUQUIER, VIRGINIA.

LATER FROM TEXAS.

The latest election news is given in a slip from the offer of the Galveston Civilian as follows:

We have received returns, in some cases full, but in most very partial, from 48 of the 116 counties, which for up for governor—Runnels, democrat, 12,516; Houston, 9,854; majority for Runnels, 2,662. The full vote of the same counties will increase this majority to over 3,000. Cameron county (Brownsville) reported 800 majority for Runnels. The returns include five or six of Houston's strong counties. We regard the election of

The election of Lubbock for lieutenant governor, and White (democrat) is 1,062 ahead of Crosby for com-

White (democrat) is 1,052 and alread of troopy for commissioner of the land office, and the result doubtful.

Of the senators holding, 11 democrats, 5 know-nothings. So far as heard from the democrats have elected 10; the know-nothings 1, in Nacogdoches.

To the lower house the democrats, so far as heard from, have 30; the know-nothings 4; independent 2.

The city council of Galveston held a meeting on the 5th instant, and passed a preamble and resolutions in re-lation to the death of General Rusk, and providing for

funeral ceremonies on the 8th. The Herald of the 9th has the following notice of the funeral obsequies of the deceased soldier, statesman, and patriot:

In compliance with previous arrangements, the various societies, companies, city authorities, and citizens of this place joined in procession and marched through our principal streets, presenting an imposing and solemn appearance. The public offices and many places of business were draped in mourning; the shipping in the harbor carried their flags at half-mast; the bells of the city were tolled, and cannon fired, in honor of the illustrious dead.

The Galveston Civilian of the 8th, in its commercial

showers continue to fall in the interior Partial showers continue to fall in the interior; our in the main, the drought continues. Great uncertainty still prevails in regard to the sugar crop. Favorable weather from this time forward may produce comparatively good crops on many plantations; but the condition of the cane is now critical, and, to a degree, unfavorable for the most part. Cotton-picking has been commenced, and, with a con-

Cotton-picking has been commenced, and, with a continuance of the present weather, there is a prospect of an early, if not a heavy, harvest—with a good article, and remunerating prices. The receipts of old crop have dwindled to the lowest figure.

R. W. Rainey, of Seguin, committed suicide on the 31st ult., by taking laudanum. He was editor and pro-prietor of the Seguin Mercury. The Galveston Herald. rom which we gather our information, says it hears

no reason assigned for the commission of the rash act. The Galveston News, in noticing the arrival of some hundred bales of hay, cut and bailed in the vicinity of Corpus Christi, remarks:

It appears that the export of hay from the west is becoming quite a business. Several of our enterprising citizens in the western portion of the State have been en citizens in the western portion of the State into bed aggred in it for some years back, and have made large shipments north, with satisfactory results. The business is now being prosecuted with the latest improvements in machines for cutting and compressing. "The truth is, the Topeka constitution is so un

ably just, and those who sustain it are so clearly backed by a majority of the people, that the squatter-sovereignty gentry are at a loss how at once to ignore the constitugentry are at a loss low at once to generic excessions, it is and sustain 'squatter sovereignty.' If the Atlas is wise, instead of fighting the people of that Territory, it will urge the President to direct that both constitutions shall be submitted to the people in October. Will it do shall be submitted to the people in October. The people who voted for the Topeka constitution

voted also to exclude negroes from residence in Kansas thus anticipating and far exceeding the decision of the upreme Court by denying the citizenship of the free As to President Buchanan directing both constitutions

to be submitted to the people of Kansas, the idea is as absurd as would be the submission of a constitution got up by a boy's debating society to supersede the organic law

The President has no such power; and the Journal knows it. But it deals in "outrages," and the refusal of the President to put the abortive Topeka sham to vote is to be one of them .- Albany Argus. At the dental convention in session last week at Bos-

At the dental convention in session last week at Bos-ton some of the dentists asserted that the main, if not the sole, cause of defective teeth was the use of salerates and cream of tartar in the manufacture of bread, and Dr. Baker fully agreed with the fact which is stated, and gave the results of some experiments which he had made by sonking sound teeth in a solution of saleratus. The teeth were destroyed in fourteen, days. Mr. Scalding, of St. This power is limited only by the size of this extra cylinder and the pressure of the steam in the steam-chest.

On the Richmond train the piston of our cylinder presents a surface of about fifty square inches; the pressure of steam is generally about one hundred pounds to the inch; so that we enable the engineer to operate his brakes with a power of five thousand pounds. There is no reason why the extra cylinder should not be double.